

CLAIMS

1. A method of recording images of a subject object, processing the image data to generate data defining a three-dimensional computer model of the subject object, and rendering the three-dimensional computer model to generate an image thereof to show a predetermined part of the subject object, comprising:

positioning the subject object relative to a calibration pattern so that a selected part of the subject object which is to appear in the image of the three-dimensional computer model is positioned in a predetermined direction relative to the calibration pattern;

recording images of the subject object and calibration pattern from different relative recording positions and/or orientations;

processing data defining the recorded images to calculate the relative positions and orientations at which the images were recorded by comparing the calibration pattern in the images with stored data defining the calibration pattern;

generating data defining a three-dimensional computer model of the subject object relative to the stored calibration pattern using the calculated positions

and orientations; and

generating data defining an image of the three-dimensional computer model showing the selected part of the subject object using a viewing camera defined  
5 relative to the stored calibration pattern.

2. A method using connected computer processing apparatus of processing images of a subject object to generate data defining a three-dimensional computer model  
10 of the subject object and processing the three-dimensional computer model to generate an image thereof showing a predetermined part of the subject object, comprising:

sending from a first apparatus to a second apparatus  
15 data defining images of a subject object together with a calibration pattern recorded from different relative recording positions and/or orientations, the subject object being positioned relative to the calibration pattern so that a selected part of the subject object  
20 which is to appear in the image of the three-dimensional computer model faces in a predetermined direction relative to the calibration pattern;

processing the data defining the images in the second apparatus to calculate the relative positions and  
25 orientations at which the images were recorded by

comparing the calibration pattern in the images with stored data defining the calibration pattern;

performing processing in the second apparatus to generate data defining a three-dimensional computer model of the subject object relative to the stored calibration pattern using the calculated positions and orientations; and

performing processing in the second apparatus or in a third apparatus to generate data defining an image of the three-dimensional computer model showing the selected part of the subject object using a viewing camera defined relative to the stored calibration pattern.

3. A method according to claim 2, further comprising:

sending from the second apparatus to the first apparatus instructions for enabling the first apparatus to control a printing apparatus to print the calibration pattern, and retaining data in the second apparatus defining the calibration pattern for subsequent use; and

printing the calibration pattern using the instructions from the second apparatus for imaging with the subject object.

4. A method according to claim 3, wherein the instructions sent from the second apparatus to the first